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JUL 25 2006Commissioner for Patents**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (currently amended) A method for providing a gas turbine compressor impeller, the method comprising the steps of:
 - a. forging IMI834 titanium to provide an impeller blank having a back face and an axis of rotation;
 - b. forging a stump portion on the impeller blank, concentric with the axis of rotation, the stump portion extending from the back face;
 - c. providing a metal alloy stub shaft; and
 - d. assembling the impeller blank to the stub shaft in an axially end-to-end relationship by friction welding the stub shaft to the stump portion, concentric with the stump portion..
2. (original) The method of claim 1 further comprising the step of providing a billet for use in said forging steps, the billet having a diameter substantially the same as a diameter of said stump portion.
3. (original) The method of claim 1 wherein the stump portion has a height measured from the back face to a stump portion end face, and wherein the height is selected to optimize the mechanical work done on the body while minimizing extrusion in the region of the stump portion to thereby provide improved mechanical properties to the body.

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4. (original) The method of claim 1 wherein the stump portion has a diameter and a height, the height measured from the back face to a stump portion end face, and wherein the height is not greater than the diameter.
5. (original) The method of claim 1 wherein the stump portion has a stump height measured from the back face to a stump portion end face, and wherein the method further comprises the step of determining a clearance height required to provide adequate clearance between the stump height and the back face for accomplishing a weld flash removal step, and wherein the stump portion is forged to have a stump height substantially equal to the clearance height.
6. (original) The method of claim 1 further comprising the steps of heat treating the welded assembly and then de-flashing a weld portion of the welded assembly.
7. (original) The method of claim 1 wherein the metal alloy is IMI834.
8. (currently amended) A method for making an impeller rotor for a gas turbine engine, the method comprising the steps of:
 - a. forging an impeller blank from IMI834 titanium alloy, the impeller blank having an axis of rotation;
 - b. providing a metal alloy component;
 - c. axially assembling the component to the impeller blank in a butt-like fashion by friction welding the component to the impeller blank, concentric with the axis of rotation, to provide a welded assembly;
 - d. heat treating the welded assembly to at least relieve a weld zone; and then
 - e. removing weld flashing from the weld zone.

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9. (previously presented) The method of claim 8 wherein the step of forging includes a step of forging a stump portion on the blank, and wherein the component is friction welded to the stump portion.

10. (canceled)

11. (previously presented) The method of claim 1, comprising forming radially extending blades in the blank.

12. (previously presented) The method of claim 11, wherein the step of forming the blades is carried out by machining the blades in the blank.

13. (previously presented) The method of claim 12, wherein the stub shaft is friction weld to the stump portion and then the blades are machined.

14. (cancelled)

15. (previously presented) The method of claim 8, comprising forming radially extending blades in the blank.

16. (previously presented) The method of claim 15, wherein the step of forming the blades is carried out by machining the blades in the blank.

17. (previously presented) The method of claim 16, wherein the component is a stub shaft and the stub shaft is friction weld to a stump portion of the blank and then the blades are machined.

18. (currently amended) A method for providing a gas turbine compressor impeller, the method comprising the steps of:

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forging IMI834 titanium to provide an impeller blank having a back face;
forging a stump portion on the impeller blank, the stump portion extending
from the back face;
providing a metal alloy stub shaft;
friction welding the stub shaft to the stump portion to provide a welded
assembly; and then
machining radially extending blades in the impeller blank.